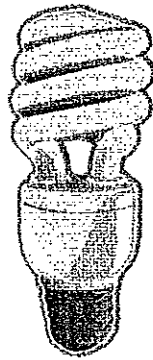


## **Used Fluorescent Blubs**



## **Proper Disposal Procedures**

## Used Fluorescent Bulbs Proper Disposal Procedures

<b>References</b>	<ul style="list-style-type: none"> <li>*401 KAR 43:020. Standards for small quantity handlers of universal waste.</li> <li>*401 KAR 43:101. General standards for universal waste.</li> <li>*Kentucky Division of Waste Management, Hazardous Waste Branch, Spent Lamps and the Universal Waste Requirements</li> <li>*Kentucky Division of Waste Management, Hazardous Waste Branch, Universal Waste</li> <li>*ORCBS Universal Waste Information</li> <li>*U.S. EPA, Universal Waste Handlers-Steps to Managing Your Universal Waste Lamps in an Environmentally Safe Manner</li> <li>*U.S. EPA, Universal Waste Rule Fact Sheet</li> </ul>
<b>Fluorescent Tubes</b>	<ul style="list-style-type: none"> <li>*An average fluorescent tube contains as much as 40mg of mercury; however, fluorescent tubes that contain 80% less mercury can now be purchased. These low mercury tubes have the same service life as the older tubes. The low mercury fluorescent tubes are easily identified by the green colored metal end caps.</li> </ul>
<b>Background Spent Lamp Generators</b>	<ul style="list-style-type: none"> <li>*Universal waste is a general descriptive term used to describe wastes that are generated by a large, diverse population.</li> <li>*Kentucky adopted the federal provisions of the Universal Waste Rule into state regulations at 401 KAR Chapter 43. The Commonwealth included spent lamps as a universal waste.</li> <li>*Classifications of Universal Waste: Unused pesticides, Mercury containing thermostats, Spent batteries, Spent lamps.</li> <li>*To be spent, a lamp must be discarded. A usable lamp removed from service and sent for recycling or disposal is considered spent even it could technically still be used for lighting. A burned out lamp becomes a waste when it is removed from the light fixture during maintenance.</li> <li>*Any organization that generates spent lamps is called a handler of universal waste. A small quantity handlers may accumulate up to 11,000 pounds of universal waste on site.</li> <li>*Green end fluorescent tubes-Not subject to the Universal Waste Rule.</li> <li>*Silver end fluorescent tubes-Subject to the Universal Waste Rule.</li> <li>*Organizations that produce several types of universal waste (i.e. batteries and spent lamps) must count all of their universal waste when determining if small quantity handler.</li> </ul>
<b>Small Quantity Handlers</b>	<ul style="list-style-type: none"> <li>*May accumulate universal wastes on site for up to one year. (Silver cap)</li> <li>*May self transport to an authorized destination facility. (Silver cap)</li> <li>*May accumulate universal wastes for more than one year for the sole purpose of facilitating proper recovery or disposal. (Silver cap)</li> <li>*May accept universal wastes from off site and keep them for up to one year. (Silver cap)</li> <li>*Must label waste as a "Universal Waste." (Silver cap)</li> <li>*Must not dilute or treat a universal waste on site. (Silver cap)</li> <li>*Must not dispose of a universal waste. (Silver cap)</li> <li>*Must prevent releases to the environment. (Silver and Green caps)</li> <li>*Must train employees on proper handling and emergency procedures. (Silver and Green caps)</li> <li>*Must respond to spills and manage the residue as hazardous waste. (Silver cap)</li> <li>*Small quantity handlers do not keep records. (Silver cap)</li> </ul>

## Used Fluorescent Bulbs Proper Disposal Procedures

\*Small quantity handlers do not register or obtain an EPA identification number. (Silver cap)

<b>Packaging and Labeling</b>	
	<p>*Collect fluorescent tubes in the same boxes they were shipped. (Silver and Green end caps)</p> <p>*Leave all flaps intact so that proper closure can be made when the box is full. (Silver and Green end caps)</p> <p>*Each container or outer container must be labeled "Used Electric Lamps" with the date the material became a waste; the date when it was received from another handler; or some other method that identifies when the waste was received or generated. (Silver cap)</p> <p>*The box must be labeled when the tubes are first added. (Silver and Green caps)</p> <p>*Containers should never be labeled "Hazardous Waste." (Silver and Green caps)</p> <p>*Do not tape tubes together. (Silver and Green caps)</p> <p>*Store in an area protected from weather and where breakage will not occur. (Silver and Green caps)</p> <p>*Completely seal box when full. (Silver and Green caps)</p> <p>*When accumulated a sufficient number of boxes, or when the boxes get in the way, arrange for recycling. (Silver and Green caps)</p>
<b>Breakage of Spent Lamps</b>	
	<p>*If silver end fluorescent tubes break prior to being sealed in a used electric lamp box, they must be collected and handled as a hazardous waste. This means putting the broken glass and powder in a bucket with a lid and marking the bucket as you would any other hazardous waste.</p> <p>*If tubes break while in a sealed box, they can still be handled as if they had not broken.</p>
<b>Recycle of Spent Lamps</b>	
	<p>*Uncrushed lamps may be sent to another universal waste handler or to a destination facility. Destination facilities are those facilities that treat, recycle or dispose of spent lamps.</p> <p>*Crushed lamps must be sent directly to a permitted hazardous waste management facility or registered recycler. Crushed lamps do not qualify for universal waste exemptions and may not be consolidated or shipped to another hazardous waste generator. Crushed lamp shipments must be accompanied by a hazardous waste manifest.</p> <p>*Fluorescent tubes with green end caps do not have to be recycled. However, they have to be placed back in their original boxes and taped up before placing in a dumpster. Unopened green end cap tubes will implode when crushed, sending glass shrapnel everywhere.</p>
<b>Consolidation of Spent Lamps</b>	
	<p>*The universal waste requirements encourage organizations with multiple locations to collect their spent lamps at a convenient location for a consolidated shipment to the destination facility.</p> <p>*The consolidation point is considered a universal waste handler. Sites that accumulate 11,000 pounds or more are regulated as large quantity handlers.</p> <p>*Accumulation of spent lamps at the consolidation point is strictly limited to one year unless more than one year is needed for the sole purpose of facilitating proper recovery or disposal.</p>
<b>Training</b>	
	<p>*The small quantity handler must ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures related to the job during business hours and emergencies.</p>